

21CC Artifact 2014

**Brenda Park
Lucky Lake School**

Grade 5 Science (Split Grade 5/6 class of 18students)

Learning Outcome HB5.2 - Investigate the structure, function, and major organs of one or more human body systems such as the digestive, excretory, respiratory, circulatory, nervous, muscular, and skeletal systems. [SI, TPS]

Goal: Identified areas of the Science 5 curriculum where student development of models of scientific concepts would be appropriate.

Integration of Critical and Collaborative Thinking: As we studied the different and related human body systems, students initially found it difficult to relate to abstract concepts that they could not see. Even after watching virtual video clips and using metaphors with mechanical systems found in their everyday lives, students still struggled to visualize how the systems inside their bodies looked and worked below the skin's surface. After networking with an experienced upper level science teacher, she suggested that I try building models with commonly found objects that would allow students to develop their own metaphors and visual connections. I used Pinterest to research ideas from other teachers for this type of model-building and found an example for the circulatory system that was age and content appropriate. Our school already had most of the suggested materials in the Art Room and I was able to purchase the rest for minimal expense at a dollar store. Students used the given materials and procedure to construct a circulatory system model. Each group of three students then used their model to explain the circulatory system to another group of students from a different classroom.

Reflection: Students enjoyed the hands on work. They were proud to explain their new knowledge and found that using the visual analogies allowed them to remember the parts and processes of each part of the circulatory system more easily when they were explaining it to other students. My intentions are to continue this type of model building with other systems as we study different content in the Science 5 course. Each time, I will have students make more decisions as to materials chosen and style of representation of the model, with the hope of bringing in technology with virtual model programs and designs.

